Star Research

The Warner & Swasey Co. announces that there is soon to rise upon Mount Locke in southwestern Texas what will be called the great McDonald Observatory. The new observatory is to be used jointly by the University of Texas and the University of Chicago. The telescope will be eighty inches, second to the largest in the world. The telescope and the Observatory will incorporate ultra-modern aids to astronomical research.

A framework of twenty-six feet long supports the eighty-inch mirror at its lower end. The glass is to be made of heat-resisting glass which has been found to be superior to optical glass because of its lack of sensitivity to temperature changes. The disk will weigh four tons when completed. It will take two years to complete the polishing and grinding. There will be supplementary mirrors to bring the stars' light to a focus.

The hemispherical dome, which houses the big telescope, weighs 115 tons. Electric motors will move the telescope on rollers so that it can be trained in any direction through the fifteen-foot slit that extends from the base of the dome to its zenith. To protect the telescope from the weather sliding metal shutters cover the aperture. Electricity automatically turns the telescope to follow the stars.

There will be electric elevators to carry the observers to the uppermost points of vantage. At the lower end, two moveable platforms, electrically operated, rise or fall at the will of the observer. A spectograph room in which the air may be maintained at a constant temperature will be used for delicate observations. The wiring system contains four miles of electric wire.

The principal task of the new observatory is to observe faint stars, distant nebulae and galaxies. With this new observatory the staff will be able to photograph stars a million times fainter than the unaided eye can see.

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